## **REMARKS**

Review and reconsideration of the Office Action dated February 05, 2009, is respectfully requested in view of the above amendments and the following remarks.

Claims 1-35 are pending in this application.

Claims 1-35 have been amended. The claims were amended to overcome the Examiner's formalities rejections. In addition, support for the claims amendment can be found on Claims 1-3 as originally filed and paragraphs [0008] to [0009] and [00028] to [00036] of the specification as originally filed.

No new matter has been added to the claims by the present amendment.

FURTHERMORE, THE EXAMINER IS RESPECTFULLY REQUESTED TO CONTACT THE UNDERSIGNED AT THE INDICATED TELEPHONE NUMBER TO CONFIRM THE DATE AND TIME SET ON THE ATTACHED INTERVIEW REQUEST.

Applicants believe that the present set of claims is novel and not obvious over the cited references because none of the cited prior art (Donhowe, Costa, and Lindon) teach a method for **enhancing the taste** of a diluted beer by using the specific elements at the specific concentrations.

The Examiner indicated that the main cited reference Donhowe teaches the addition of nutrients to a beer to produce a <u>fortified beer</u> and that the secondary reference Costa teaches a plurality of mineral added to a beverage to improve the <u>nutritional values</u> of the beverage.

According to the Examiner, given the spectrum of minerals disclosed by Costa as well as the amount and given that it is well known that minerals provide nutritional and health benefits, the examiner is of the opinion that it would be obvious to a person skilled in the art, at the time the present invention was made, to use the minerals in amounts, including those presently claimed, in order to produce beer with desired taste that also provides health and nutritional benefits to the consumer. (Page 6 of the outstanding Office Action)

The undersigned is surprised of the position of the Examiner because on page 2 of the present Office Action, the Examiner objected the claims for incorporating chemicals in the mineral additive that are known to be **toxic** to human and animals.

On page 6, the Examiner is promoting adding minerals, which the Examiner already recognizes that are toxic to humans, into the beer even if some of them are toxic.

It is clear from the Examiner's point of view on page 2 that a person skilled in the art looking at all the minerals shown in the Costa reference (which is by the way missing some of the claimed minerals) will never consider adding the identified toxic minerals into a beverage such as a beer because of the toxicity of the components.

Thus, how is the Examiner, even recognizing that some of these minerals are toxic to human, may proposed on page 6 to add the toxic minerals shown by Costa into a beer?

The undersigned believes that the Examiner's positions on pages 2 and 6 are contradictory.

Furthermore, Applicant respectfully points out to the Examiner that the levels of each element needed to provide a health benefit is different to the level of an element required for enhancing taste. Applicant notes that combining minerals from three documents (Donhowe, Costa, and Lindon) centered around a health benefit cannot give the combination and proportions of the elements as set out in the present claims directed to enhancing the flavor of a beer, because there is nothing in the cited references that suggest that adding these elements beyond the ones set out in the individual citations will improve the health benefit indicated in the individual document.

Applicants' <u>further</u> comments regarding the differences between the present invention and the cited reference can be found below.

## Office Action

Turning to the Office Action, the paragraphing of the Examiner is adopted.

# Claims Objection-Formalities

The Examiner objected Claims 1-35 because of informalities.

The Examiner's position can be found on pages 2-3 of the Office Action.

In response, Applicant has amended the claims to overcome the formalities objections.

Regarding the Examiner's objection that the claims incorporate some chemicals which are known to be toxic to human being and animals.

Applicants respectfully point out to the Examiner that the levels of chemical used in the present invention are at levels that are non-toxic.

Furthermore, Applicants respectfully point out to the Examiner that it is not the role of the Patent Examiner to consider this type of aspect in their assessment of a patent application. See MPEP at 2100-36 under the heading V. Safety and Efficacy considerations, which states:

"The Office must confine its review of the patent application to the statutory requirements of the Patent law. Other agencies of the Government have been assigned the responsibility of ensuring conformance to standards established by statute for the advertisement, use, sale or distribution of drugs."

Accordingly, withdrawal of the claims objection is respectfully requested.

# Claims Rejections – Formalities

The Examiner rejected Claims 10-18 and 33-34 because of informalities.

The Examiner's position can be found on pages 3-4 of the Office Action.

In response, Applicant has amended the claims to overcome the formalities objections.

Accordingly, withdrawal of the claims rejection is respectfully requested.

# Claims Rejection- (Prior Art – Obviousness)

The Examiner rejected Claims 1-35 under 35 U.S.C. 103(a) as being obvious over Donhowe (US 2003/0157218) in view of Costa (WO 01/68534) further in view of Lindon et al. (US 5,786,006).

The position of the Examiner can be found on pages 4-7 of the Office Action.

Applicants respectfully traverse.

The present set of claims contains two independent claims, namely, Claims 1 and 35. Claim 1 is directed to a method for enhancing a diluted beer and Claim 35 is directed to a diluted beer made according to the method of Claim 1.

The following remarks are addressed to independent Claims 1 and 35, because if these claims are not anticipated or obvious, it follows that none of the other rejected dependent claims are anticipated or obvious.

Applicant respectfully points out to the Examiner that the present invention is directed to a method for enhancing the taste of a <u>diluted</u> beer by using specific soluble compounds of the claimed minerals.

## **Donhowe**

Applicant notes that Donhowe teaches a process for the preparation of a sport beer having enhanced nutrition. Various supplements including proteins, peptide, amino acid, antioxidant, mineral and/or vitamin supplements are added to the beer to increase the nutritional value. (See Abstract, paragraphs [008] and [0014])

Applicant notes that the reference only teaches the addition of calcium, zinc and iron (paragraphs [0015] -[0017]). In addition, Applicants note that Examples I and II have no added

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minerals, and Example III has calcium in the form of calcium citrate, which is said to provide 20% of the RDA.

Compared with Claim 1, the Donhowe reference fails to teach: 1) a method for enhancing the taste of a diluted beer. Furthermore, the cited reference fails to teach 2) the following mineral additive: group A minerals such as magnesium; group B minerals such as phosphorus, potassium, silicon, sodium, chlorine; group C minerals such as boron, chromium, cobalt, copper, iodine, lithium, manganese, molybdenum, nickel, selenium, tin, and vanadium. Finally, the cited reference fails to teach that: 3) the mineral additive enhances taste characteristics of the diluted beer.

Compared with Claim 35, the Donhowe reference fails to teach a diluted beer made by the method of Claim 1.

# Regarding points 1 and 3 (Method for enhancing the taste of a diluted beer)

Applicant respectfully points out to the Examiner that nowhere in the reference can be found the teaching of enhancing the flavor or taste of a beer.

Furthermore, the cited reference is not directed to diluted beers but rather to fortified beers.

In addition, Applicant notes that the feature of the Donhowe reference is to make the beer more nutritious and that the minerals are added as part of reaching this objective.

There is not any technological motivation on Donhowe to add a mineral mix that improves taste of the diluted beer because the mixture used by Donhowe is tailored for improving the nutritional value of the beer.

Regarding point 2 (the following mineral additive: group A minerals such as group B minerals such as phosphorus, potassium, silicon, sodium, magnesium:

chlorine; group C minerals such as boron, chromium, cobalt, copper, iodine, lithium, manganese, molybdenum, nickel, selenium, tin, and vanadium.)

Applicant notes that the reference only teaches the addition of calcium, zinc and iron (paragraphs [0015] -[0017]). In addition, Applicants note that Examples I and II have no added minerals, and Example III has calcium in the form of calcium citrate, which is said to provide 20% of the RDA.

Applicant is happy to see that the Examiner recognized that the Donhowe reference fails to teach the above-indicated minerals. See point 17 on page 5 of the outstanding Office Action.

There are some quite strong preferences in the source of the elements that form part of the present invention. The minerals must be provided as a soluble salt and the combination of minerals must not be in a form that provides imbalances to the final composition or interferes with the manufacturing process. The preferable elements are maintained in a form capable of impacting on taste, thus the salts in which the elements are provided should be intercompatible and not, for example, complexed into forms that are unavailable for taste perception. Also there should be no other components that provide for significant adverse taste or health effects.

It was not after a long search and research that the present inventor discovered that the claimed compounds do not adversely complex or interferes chemically with other compounds among the components.

The present inventor surprised discovered that the addition of certain levels of a complex mixture of minerals enhances the capacity to dilute beer by compensating for the reduction and disruption of flavors and taste characteristics (profiles) commensurate with dilution. Additionally, it is found that by the addition of the specific combination of minerals to beers of all strengths

that flavor and taste perceptions are enhanced compared with diluted beer which are only being diluted with water.

#### **Costa**

The Examiner cited the Costa reference to show the teaching of adding minerals to a drink.

Applicant notes that Costa provides for a very open ended range of minerals in amounts relative to health benefit but not in line with taste. There is no indication of amounts of minerals that enhance flavors and no indication that a certain balance of at least 7 minerals do so. There is no disclosure of the balance of the at least 7 minerals in amounts defined in the instant claims that would inherently enhance taste.

Applicants note that Costa takes the reader through the problems associated with the use of distilled water and the benefits of supplementing water and other drinks with a range of additives including vitamins, minerals amino acids, protein supplements, and extra supplements such as probiotics, garlic, papaya enzymes and omega-3 fatty acids.

In addition, Applicant notes that Costa teaches that water in particular is devoid of minerals/vitamins and the like and that a certain number of them are needed to avoid symptoms such as fatigue. It would seem to the applicant to be implicit that all of the compounds are needed. However the reference to the amounts needed define a range starting at 0. Thus one is left uncertain as to what compounds are actually required. There is no definite indication as to which combinations of these compounds should be used together or whether all or how many of them should be used.

The levels of compounds indicated in Costa is given in weight only and it is not clear whether that means the compounds are provided in that amount per liter or some other volume.

Applicant notes that there is clearly no suggestion in Costa to provide minerals in particular proportions that co-act to provide a balanced taste. A balance of different proportions of at least the Group A and B minerals is not suggested by Costa. Furthermore there is no

disclosure of the specific ranges claimed in the instant invention, which ranges are critical for a balanced flavor, as opposed to providing adequate levels from a nutritional point of view.

# Combining the Donhowe and Costa References

According to the Examiner, given the spectrum of minerals disclosed by Costa as well as the amount and given that it is well known that minerals provide nutritional and health benefits, the examiner is of the opinion that it would be obvious to a person skilled in the art, at the time the present invention was made, to use the minerals in amounts, including those presently claimed, in order to produce beer with desired taste that also provides health and nutritional benefits to the consumer.

The undersigned is surprised by the position of the Examiner because on page 2 of the present Office Action, the Examiner objected the claims for incorporating chemicals in the mineral additive that are known to be <u>toxic</u> to human and animals.

On page 6, the Examiner is promoting adding minerals into the beer even if some of them are toxic. ??????????

It is clear from the Examiner's point of view on page 2 that a person skilled in the art looking at all the minerals shown in the Costa reference (which is by the way missing some of the claimed minerals) will never consider adding the identified toxic minerals into a beverage such as a beer because of the toxicity of the components.

Thus, how is the Examiner proposing on page 6 to add the toxic minerals shown by Costa into a beer?

The undersigned believes that the Examiner's positions on pages 2 and 6 are contradictory.

In addition, Applicant notes that the Costa reference does not overcome the deficiencies of the Donhowe reference because the Costa reference <u>also</u> fails to teach: 1) a method for enhancing the taste of a diluted beer. Furthermore, the cited reference <u>also</u> fails to teach 2) the

following mineral additive: group C minerals such as boron, cobalt, lithium. Finally, the cited reference <u>also</u> fails to teach that: 3) the mineral additive enhances taste characteristics of the diluted beer.

Compared with Claim 35, the Donhowe reference fails to teach a diluted beer made by the method of Claim 1.

The combination of Costa with Donhowe does not provide a means for taste balancing beer.

In Ex parte Viscardi, 136 USPQ 382, the applicants discovered that the addition of carbon dioxide would completely remove static electricity. The Examiner rejected the application over a reference that taught the addition of carbon dioxide, but for a different reason. The issue was whether the addition of carbon dioxide to completely remove static electricity was novel. The court held that the invention was unobvious. The rule of law is that a significant and unobvious improvement could be used to rebut an obviousness rejection. The court reasoned that in the absence of appreciation by the patentee of the fact that carbon dioxide will completely remove a charge of static electricity, there was no reason why the inventor, or one skilled in the art following the patentee's teaching, should inherently adjust the concentration of carbon dioxide for the removal of the complete static charge.

Similarly, the present inventor discovered that the selection of the claimed minerals at the claimed proportions produces a mineral additive that enhances the taste of a diluted beer and at the same time it is not harmful to humans or animals even if toxic chemicals form part of the mineral additive.

Only, after much experimentation and testing of many compounds, did the present Applicant discover that the specific mixture of minerals and the specific proportions would <u>always</u> provide the capacity to dilute beer by compensating somewhat for the reduction and disruption of flavor and taste characteristics (profiles) commensurate with the dilution.

Thus, in the absence of teaching by Costa that producing the mineral additive according to the present invention would <u>always</u> provide the capacity to dilute beer by compensating somewhat for the reduction and disruption of flavor and taste characteristics (profiles) commensurate with the dilution, there was no reason why Applicants, or one skilled in the art following Costa teaching, will conclude with the present invention.

Thus, neither of the Donhowe and Costa references, taken alone or in combination, teaches the present invention as claimed.

#### **Lindon**

The Examiner cited the Costa reference to show the teaching of adding lithium into a beverage.

Applicant notes that Lindon refers to mineralized water formulation that has utility in preventing cardiovascular disease. The water contains certain amounts of strontium, magnesium, calcium and lithium. There is no reference to adding these compounds to enhance flavor. Thus the lithium being added to water but not with the objective of enhancing the flavor.

## Combining Dowhowe, Costa, and Lindon

According to the Examiner given the teaching of Donhowe (adding additives to a beer) and Costa (type and concentration of minerals), the examiner is of the opinion that it would be obvious to a person skilled in the art, at the time the present invention was made, to dilute beer and incorporate the minerals as taught by Donhowe and Costa and Lindon to compensate for the effects that dilution of a drink such as beer may have on the taste and mouth feel.

Applicant's position regarding the combination of Donhowe and Costa references can be found above.

Basically, the undersigned is surprised by the position of the Examiner because on page 2 of the present Office Action, the Examiner objected the claims for incorporating chemicals in the mineral additive that are known to be toxic to human and animals. Thus, it is clear from the Examiner's point of view that a person skilled in the art looking at all the minerals shown in the Costa reference (which is by the way missing some of the claimed minerals) will never consider to add toxic minerals into a beverage.

For the same reasons set forth above in the combination of the Donhowe and Costa references, the combination of the three cited references <u>fail to</u> teach the present invention as presently claimed.

In addition, Applicant notes that the Lindon reference does not overcome the deficiencies of the Donhowe reference because the Lindon reference <u>also</u> fails to teach: 1) a method for enhancing the taste of a diluted beer. Furthermore, the cited reference <u>also</u> fails to teach 2) some of the claimed mineral additives. Finally, the cited reference <u>also</u> fails to teach that: 3) the mineral additive enhances taste characteristics of the diluted beer.

Compared with Claim 35, the Lindon reference fails to teach a diluted beer made by the method of Claim 1.

The combination of Costa with Donhowe and Lindon does not combine to provide a means for taste balancing beer.

Furthermore, the combination of the three cited references does not give the combination of at least 7 minerals in the weight ranges that are presently claimed.

## Regarding Claim 2

None of the cited references teach adding water to the beer after the addition of the minerals additive.

Accordingly, withdrawal of the claims objection is respectfully requested.

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Favorable consideration and early issuance of the Notice of Allowance are respectfully Should further issues remain prior to allowance, the Examiner is respectfully requested to contact the undersigned at the indicated telephone number.

Respectfully submitted,

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Date: June 29, 2009

## **CERTIFICATE OF FILING**

I hereby certify that a copy of the foregoing AMENDMENT A for U.S. Application No. 10/574,874 filed April 06, 2006, was electronically filed addressed: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on June 29, 2009.